Contribution ID: **26**   Type: **tutorial**

Practical mission analysis with Python

Friday, 10 December 2021 14:00 (1 hour)

In this tutorial, we will go over basic topics about orbit analysis in a practical way, aiming to address some common misconceptions. In particular, we will cover

- How to visualize osculating orbits and ephemeris,
- What a TLE is and is not,
- How to fetch TLE and ephemeris data from open sources,
- How to propagate osculating orbits and TLEs,
- How to design transfer orbits and maneuvers,
- How to compute satellite sensor coverage metrics.

We will use a cloud environment, so no installation is required. Basic understanding of the Python programming language is required to effectively follow the tutorial, and we will use libraries like poliastro, orbit-predictor, and Plotly.

Primary author: Mr CANO RODRÍGUEZ, Juan Luis

Session Classification: Workshop